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## Groundwater Maps of the Hanford Site, June 1994

J. A. Serkowski  
W. A. Jordan  
M. J. Hartman

Date Published  
December 1994

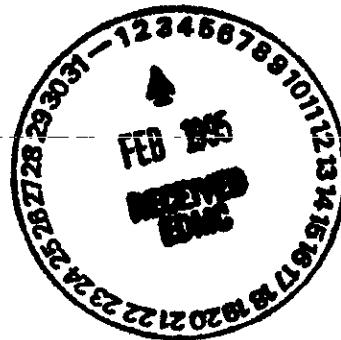
Prepared for the U.S. Department of Energy  
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Waste Management



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Richland, Washington

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GROUNDWATER MAPS OF THE HANFORD SITE  
JUNE 1994

1.0 INTRODUCTION

This report is a continuation of reports (Kasza et al., 1994) that document the configuration of the uppermost unconfined aquifer beneath the Hanford Site (Figure 1). This series presents the results of the semiannual water level measurement program and the water table maps generated from these measurements. The reports document the changes in the groundwater level at the Hanford Site during the transition from nuclear material production to environmental restoration and remediation. In addition, these reports provide water level data to support the various site characterization and groundwater monitoring programs currently in progress on the Hanford Site. The reports are prepared for the U.S. Department of Energy, Office of Environmental Restoration and Waste Management, by the Hanford Site Operations and Engineering Contractor, Westinghouse Hanford Company (WHC). This report fulfills reporting requirements specified in WHC-CM-7-5, Section 8.0, "Water Quality" (WHC 1993a), and described in the Environmental Monitoring Plan for the Hanford Site (DOE-RL 1991).

This report highlights the three major operations areas (the 100, 200, and 300/1100 Areas) where wastes were discharged to the soil. Each area includes a summary discussion of the data, a well index map, and a contoured map of the water table surface. Appendix A contains all of the data collected for this program, including data which were not used in the preparation of the water table maps.

The National Geodetic Vertical Datum of 1929 (NGVD29) is used as the vertical datum and Washington State Lambert coordinates are used for the horizontal location of the wells. Elevation data were converted from feet to meters for this report.

2.0 DATA COLLECTION, MANAGEMENT, EVALUATION, AND PRESENTATION

During June 1994, the depth to groundwater was measured in 814 wells on the Hanford Site by personnel from the Well Services Group under the direction of the Groundwater Management Group project leader. The procedure for measuring the depth to water and recording the data is contained in WHC-CM-7-7, *Environmental Investigation and Site Characterization Manual*, EII 10.2 (WHC 1993b). Field data were collected using the Groundwater Monitoring System, which employs a barcode interface to enter readings that have been taken manually with a steel tape from the reference point at the top of the well casing. The barcode hand-held computer downloaded the field data to a supervisory workstation that stores all groundwater level measurements.

These data were then transferred to the Hanford Environmental Information System (HEIS) database and were later downloaded to a Paradox<sup>1</sup> application program called GeoDAT to help organize, evaluate, and tabulate the data.

Data evaluation began with a review of the well construction and the quality of data obtained in June 1994. The following parameters were examined for most wells to determine the suitability of including the data in the water table surface model.

- Well location survey - A number of wells were rejected due to nonexistent or unreliable surveys.
- Screened interval - Wells were usually rejected if the screened interval exceeds 15 m in the water table (wells with long screened intervals were used where no alternate wells existed and vertical gradients were not considered significant); wells were also rejected if the screened interval is entirely below the top of the water table or the screened interval is not reliably known.
- Aquifer monitored - Only wells known to monitor the uppermost unconfined aquifer were included.
- Anomalous data - Data collected in June 1994 which does not agree with historic trends at that well were rejected.

Information for conducting this review was obtained from the HEIS database, personal communications with project scientists, and the most recent *Resource Conservation and Recovery Act of 1976* (RCRA) Quarterly report (DOE-RL 1994). The notes column in the Appendix A data table reflects the results of this review.

Of the 814 wells measured in June 1994, 534 were selected to create a water table surface model. A model grid was generated using a kriging algorithm available in the ARC/INFO<sup>2</sup> geographic information system (GIS) software. The GIS then created contour lines of equal water table elevations from the model grid. Contours are not present in areas where the basalt surface is believed to be above the water table, based on Connelly et al. (1992a and 1992b). Contours are dashed where the water table is poorly delineated due to inadequate well coverage.

Hydrologists familiar with regional and local groundwater properties reviewed the maps to evaluate data interpolations made by the computer model. The contours were adjusted manually to reflect the known hydrologic environment.

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<sup>1</sup>Paradox is a trademark of Borland International, Scotts Valley, California 95067-0001

<sup>2</sup>ARC/INFO is a trademark of Environmental Systems Research Institute, Inc., Redlands, California 92373-8100

### 3.0 HANFORD SITE MAPS

Chapter 3.0 summarizes the results of the water table surface model generated from the June 1994 data. Figure 1 shows the relative locations of the detail facility area maps included in this document. To provide context, Figure 2 shows the water table surface for the entire Hanford Site. The detail maps are enlargements of this same sitewide model.

#### 3.1 100 AREAS MAPS

For the purposes of this report, the 100 Areas comprise the various 100 Area reactor facilities and the surrounding land south of the Columbia River and north of Gable Mountain and Gable Butte. Reactor operations have ceased in all of the facilities, and environmental restoration activities are in progress. Maps for this area include Figure 3, Index Map of the 100 Areas Groundwater Monitoring Wells, and Figure 4, 100 Areas Water Table. Some of the wells used have screened intervals exceeding 15 m within the top of the unconfined aquifer since the vertical gradients are not believed to be significant in this area.

Throughout most of the map area, groundwater flows from the unconfined aquifer into the Columbia River. West of the 100-B/C Area, water is believed to flow from the Columbia River into the aquifer.

The high water levels north of Gable Mountain are consistent with past measurements. Drillers' logs indicate the presence of fine-grained sediments in this area. The high water levels may be remnants of artificial recharge from pre-Hanford Site irrigation or may represent perched groundwater. The steep groundwater gradient in the southeastern portion of the map area is believed to result from the influence of the fine-grained sediments.

#### 3.2 200 AREAS MAPS

These maps encompass the 200 East and 200 West Areas and the surrounding vicinity on the Hanford Site that was once referred to as the Separations Area. There are several active and many inactive liquid waste disposal facilities in this region. The 200 Areas maps consist of Figure 5, 200 Areas Monitoring Well Index Map, and Figure 6, 200 Areas Water Table.

Three facilities are notable in their impact on the water levels in this area: U Pond (216-U-10), located in the southwestern corner of 200 West Area, Z Plant (234-5), north of the U Pond Site, and B Pond (216-B-3), located east of 200 East Area. U Pond was deactivated in 1984 after 40 years of use as a disposal site for large volumes of liquid wastes. The relatively low hydraulic conductivity found beneath 200 West Area coupled with continued effluent discharge in cribs associated with Z Plant has helped to maintain a significant water table mound under 200 West Area. Since 1984, the high point of the groundwater mound has shifted northward from U pond, toward Z Plant. A steep gradient occurs east of 200 West Area as the water table intersects the higher conductivity sediments beneath 200 East Area. With higher conductivities, the water table beneath the 200 East Area is generally flat.

B Pond, which continues to receive significant volumes of liquid effluent, does maintain a groundwater mound, influencing groundwater travel direction over a wide area.

### 3.3 300/1100 AREAS MAPS

These maps show the June 1994 water table measurements for the 300 Area and the adjacent 1100 Area. Liquid waste disposal continues only at the 300 Area Process Trenches, though clean river water is discharged during the summer months at the City of Richland well field recharge ponds located east of the 1100 Area. The 300/1100 Area maps consist of Figure 7, 300 Area Monitoring Well Index Map, and Figure 8, 300 Areas Water Table.

The unconfined aquifer within this area is contained in the Ringold Formation and the Hanford formation (Swanson et al., 1992). The top of the unconfined aquifer is close to the Hanford/Ringold contact. Generally, west of an imaginary north-south line near the west boundary of the 300 Area the unconfined aquifer is within the Ringold Formation. East of the line it is within the Hanford formation, which is more permeable than the Ringold and may be expected to permit higher flow velocities.

The major influences on water table elevations in the map area are river fluctuations, irrigation, and river water recharged into the City of Richland well field near the 1100 Area. Water table elevation may also be dependent on recharge from the Yakima River to the west. Combined with high permeabilities in the Ringold formation, these influences result in a complex flow regime where local flow directions are difficult to predict.

## 4.0 REFERENCES

Connelly, M. P., B. H. Ford, and J. V. Borghese, 1992a, *Hydrogeologic Model for the 200 West Groundwater Aggregate Area*, WHC-SD-EN-TI-014, Westinghouse Hanford Company, Richland, Washington.

Connelly, M. P., B. H. Ford, J. W. Lindberg, S. J. Trent, C. D. Delaney, and J. V. Borghese, 1992b, *Hydrogeologic Model for the 200 East Groundwater Aggregate Area*, WHC-SD-EN-TI-019, Westinghouse Hanford Company, Richland, Washington

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Swanson, L. C., G. G. Kelty, K. A. Lindsey, K. R. Simpson, R. K. Price, and S. D. Consort, 1992, *Phase I Hydrogeologic Summary of the 300-FF-5 Operable Unit, 300 Area, WHC-SD-EN-TI-052*, Westinghouse Hanford Company, Richland, Washington.

WHC, 1993a, *Environmental Compliance*, WHC-CM-7-5, Westinghouse Hanford Company, Richland, Washington.

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# Hanford Site Index Map

## June 1994

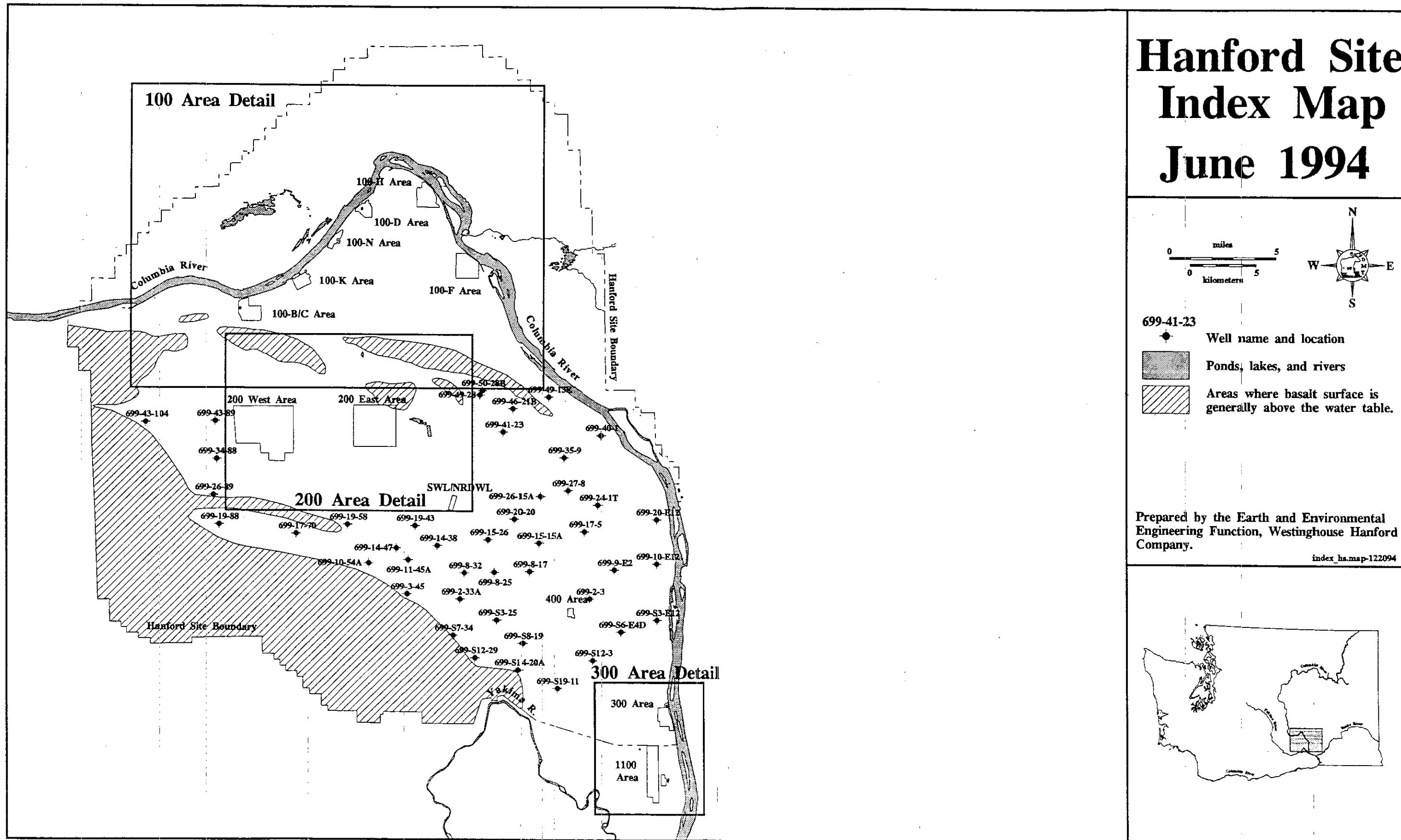


Figure 1. Hanford Site Location Map.

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# Hanford Site Water Table June 1994

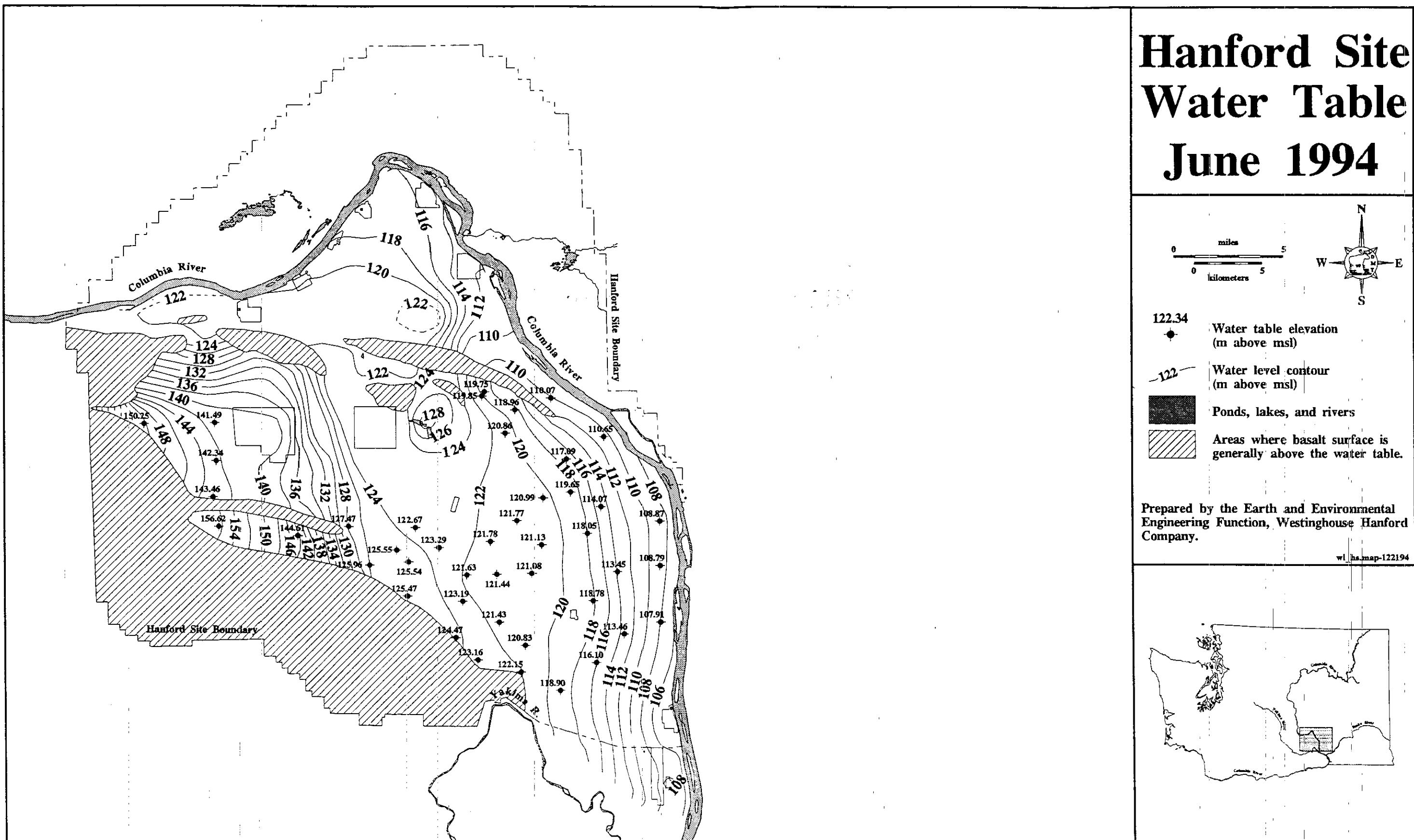


Figure 2. Hanford Site Water Table.

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# 100 Areas Index Map

## June 1994

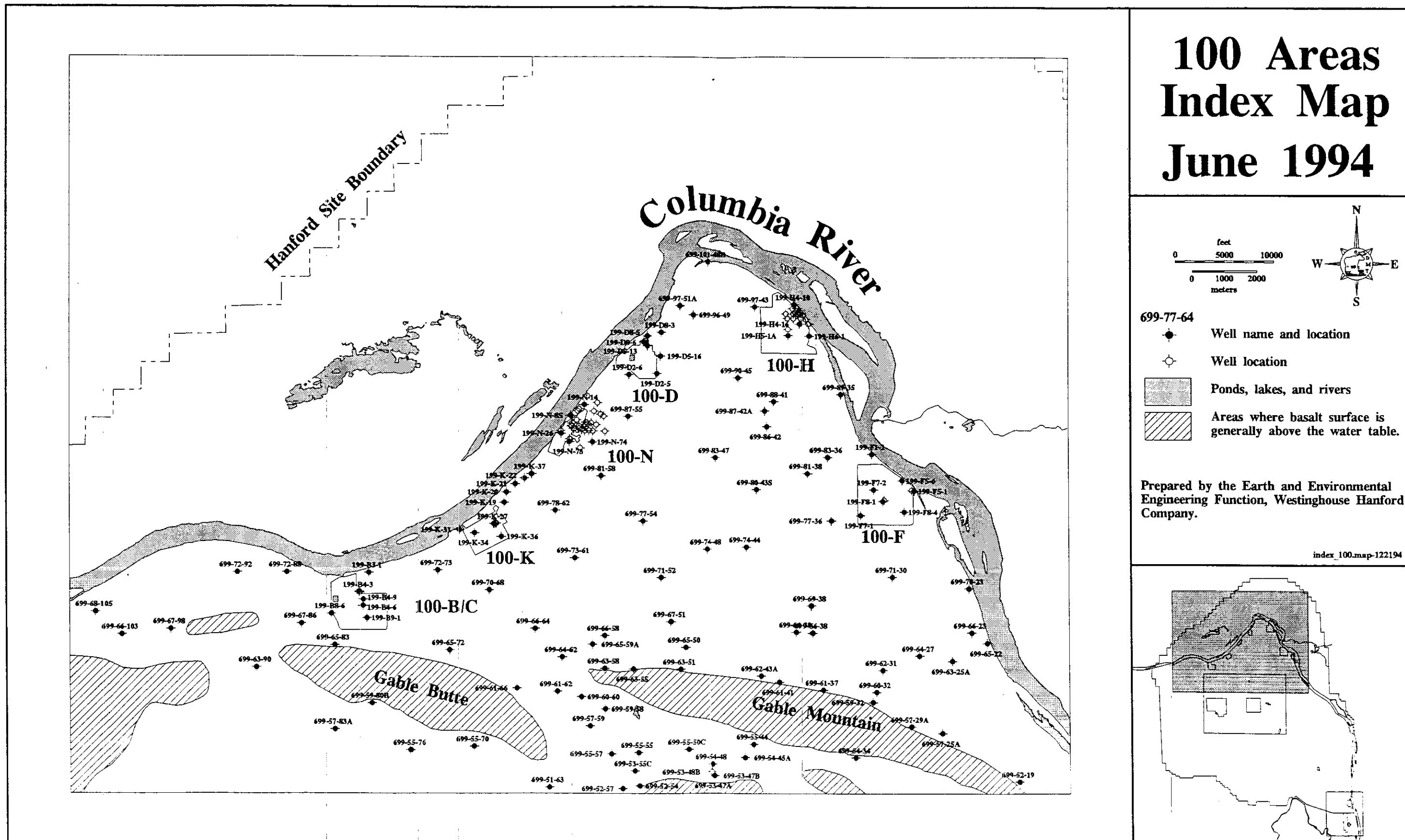


Figure 3. 100 Area Location Map.

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# 100 Areas Water Table

## June 1994

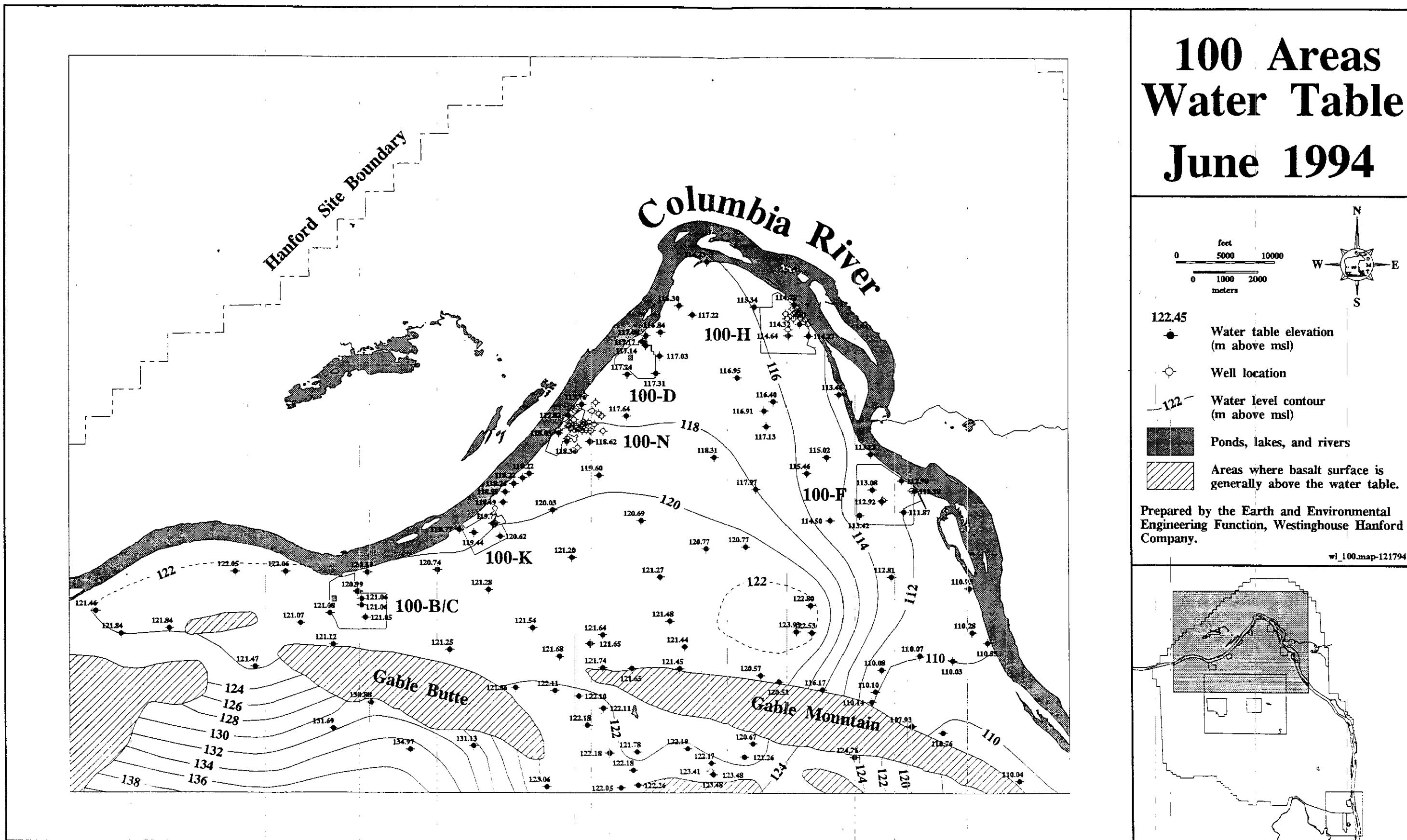
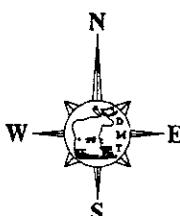


Figure 4. 100 Area Water Table.

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# 200 Areas Index Map

## June 1994



- 699-39-39  
Well name and location
- Well location
- Ponds, lakes, and rivers
- Areas where basalt surface is generally above the water table.

Prepared by the Earth and Environmental Engineering Function, Westinghouse Hanford Company.

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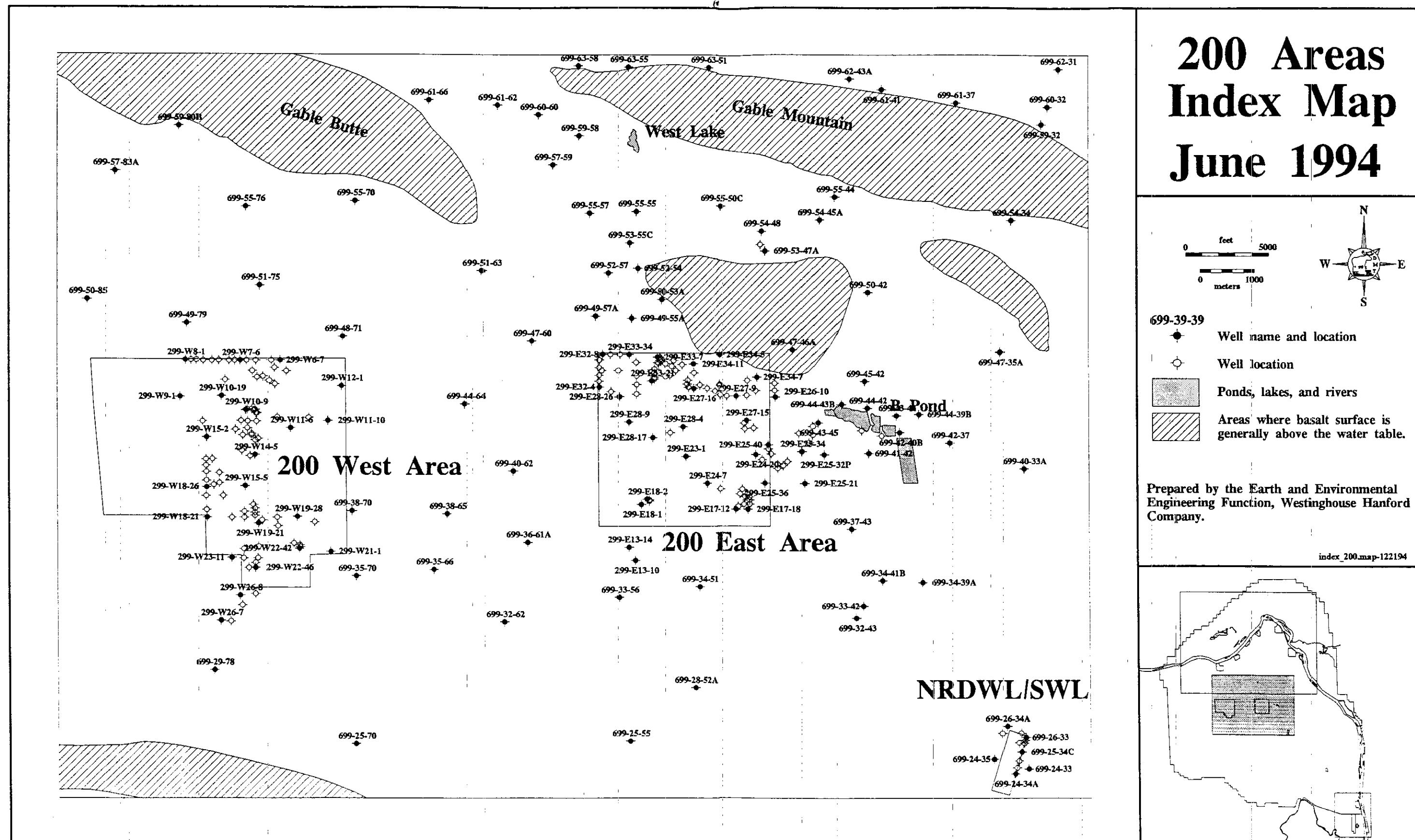


Figure 5. 200 Area Location Map.

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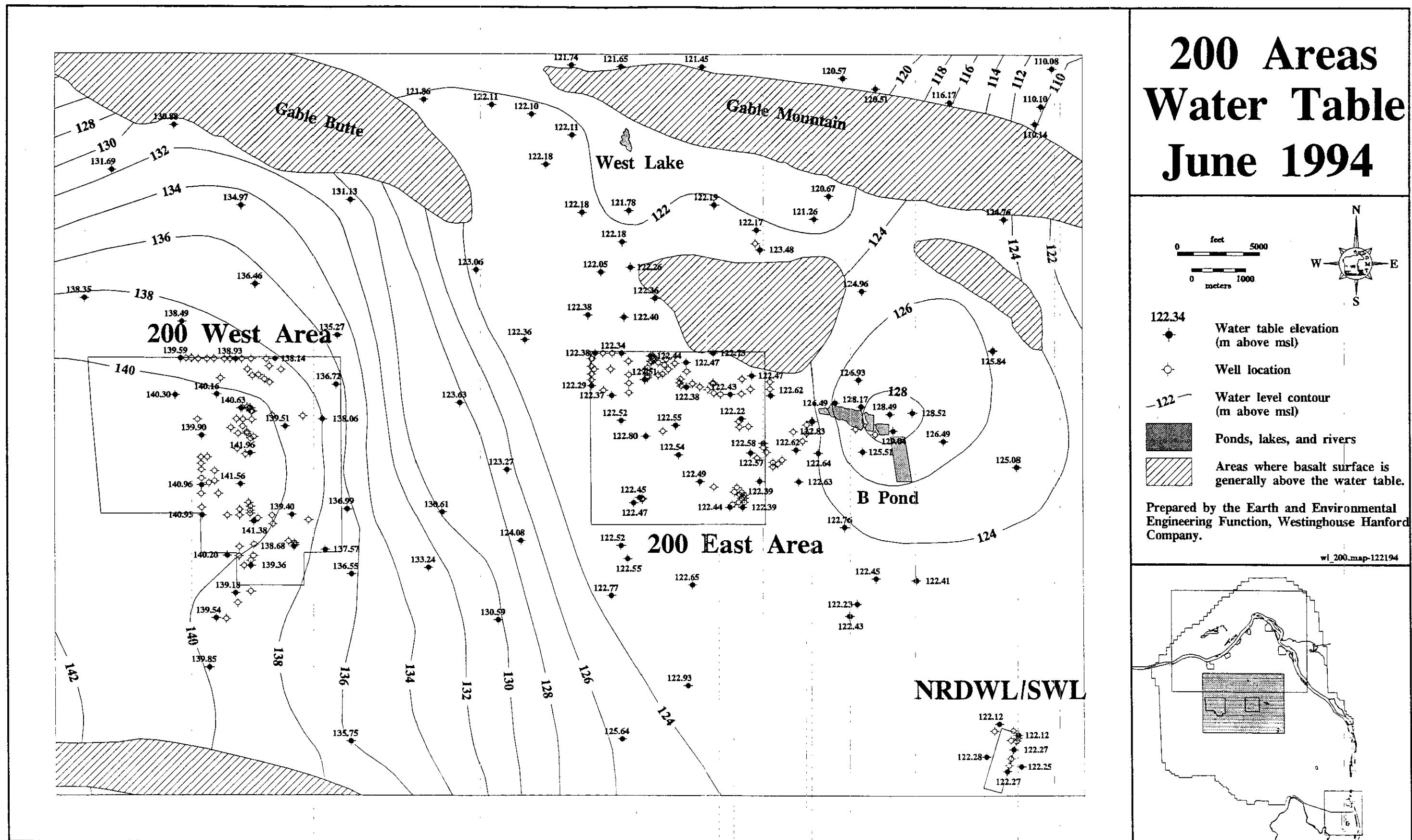
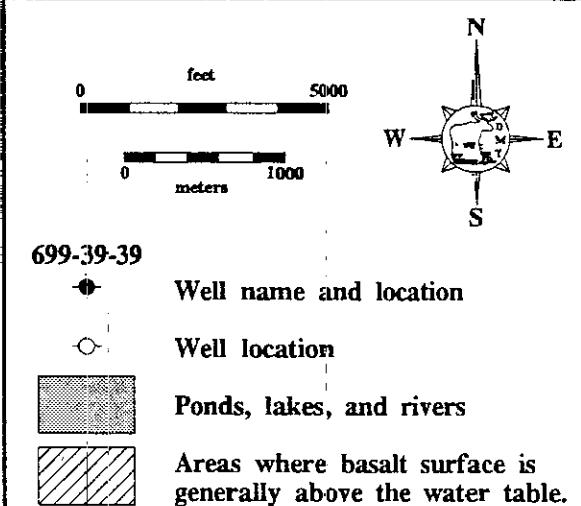


Figure 6. 200 Area Water Table.

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# 300 Area Index Map

## June 1994



Prepared by the Earth and Environmental Engineering Function, Westinghouse Hanford Company.

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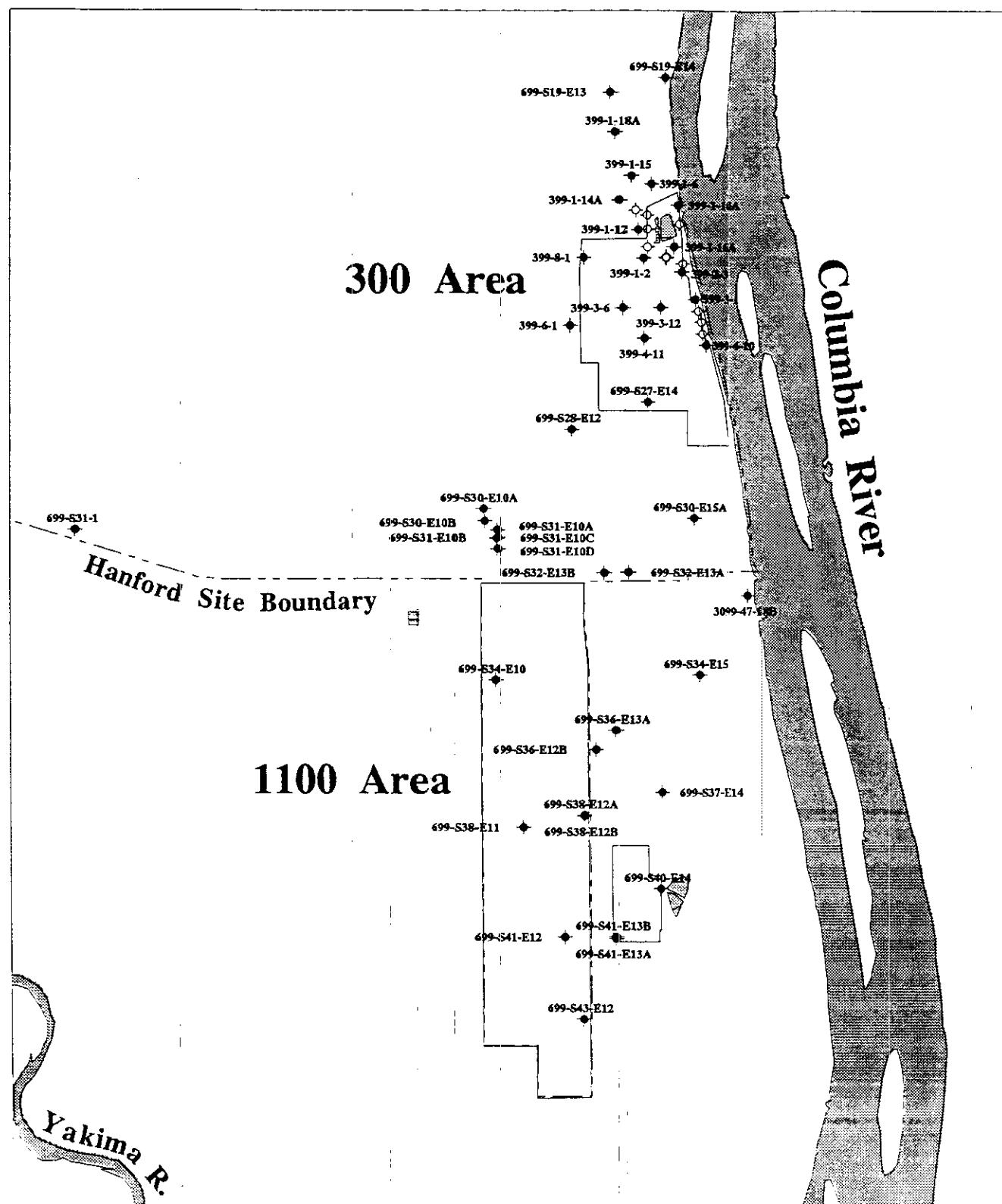
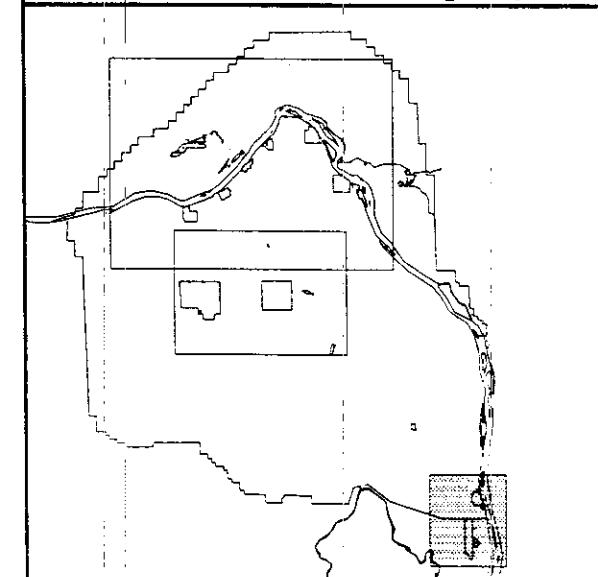


Figure 7. 300 Area Location Map.

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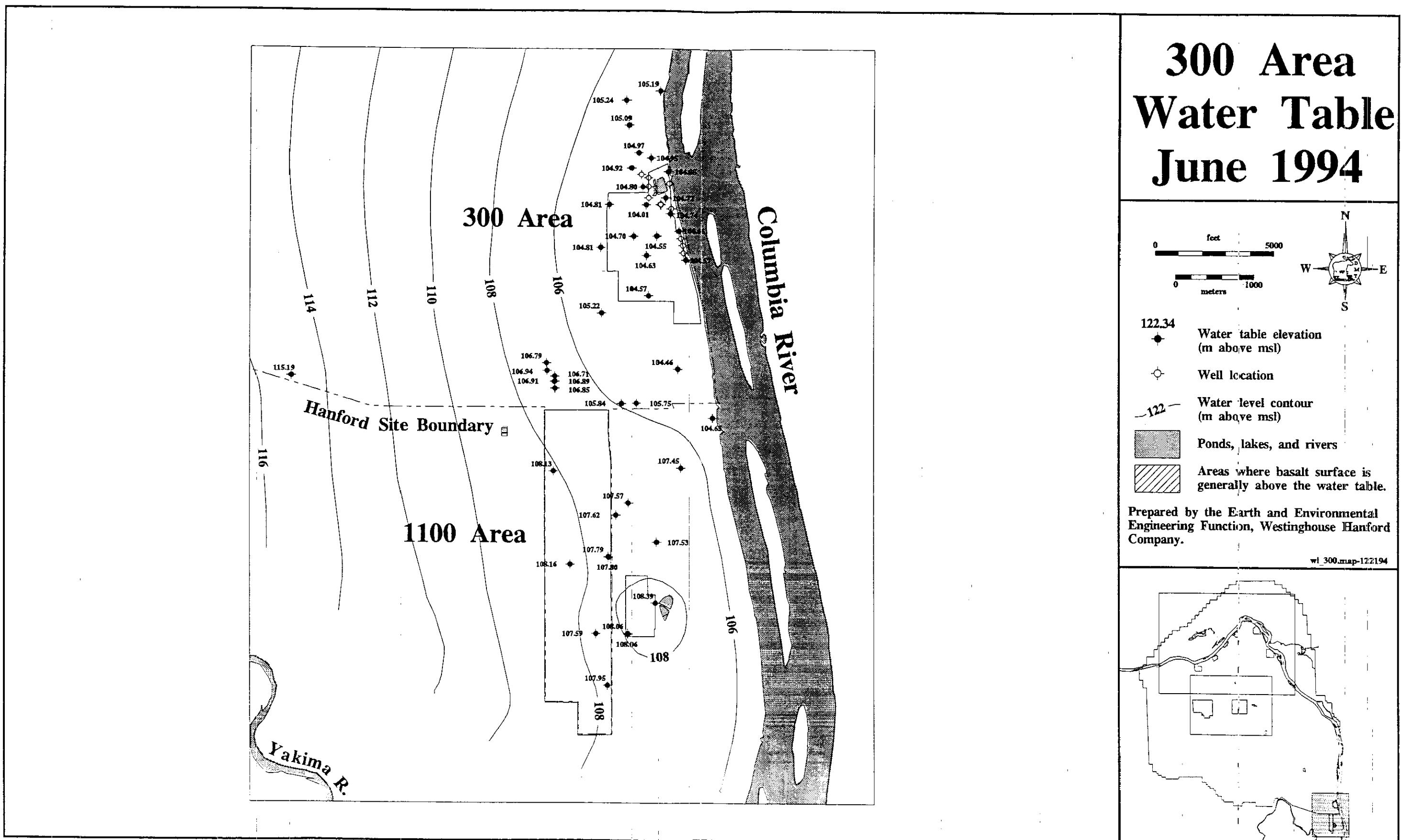


Figure 8. 300 Area Water Table.

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**APPENDIX A**  
**WATER LEVEL MEASUREMENT DATA**

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Appendix A: June 1994 Water Level Measurement Data  
(Sheet 1 of 23)

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
199-B2-12	C	13.09	133.83	120.73
199-B2-13	C	6.93	127.57	120.63
199-B3-1		13.54	133.87	120.33
199-B3-46	D	14.30	134.61	120.30
199-B3-47	D	13.46	133.74	120.28
199-B4-1	N	19.55	140.57	121.02
199-B4-3		19.74	140.73	120.99
199-B4-4	I	23.27	143.91	120.64
199-B4-6	N	25.83	146.89	121.06
199-B4-8	D	23.29	144.35	121.05
199-B4-9		22.64	143.70	121.06
199-B5-1	I	17.85	138.86	121.01
199-B5-2	D	18.89	139.88	120.98
199-B8-6		23.81	144.90	121.08
199-B9-1	N	30.18	151.22	121.05
199-B9-2	D	30.54	151.61	121.07
199-B9-3	D	29.21	150.28	121.08
199-D2-5		22.98	140.30	117.31
199-D2-6		25.80	143.04	117.24
199-D5-12	I	26.02	143.14	117.13
199-D5-13		26.57	143.71	117.14
199-D5-14	D	26.69	143.77	117.08
199-D5-15	D	26.57	143.72	117.15
199-D5-16		27.11	144.14	117.03
199-D5-17	D	25.84	143.10	117.26
199-D5-18	D	25.07	142.24	117.17
199-D5-19	D	24.43	141.67	117.24
199-D5-20	D	25.43	142.68	117.25
199-D8-3		20.01	136.85	116.84
199-D8-4	N	25.69	142.87	117.18
199-D8-5		20.84	137.92	117.08
199-D8-53	D	15.96	132.90	116.94
199-D8-54A	D	18.00	134.96	116.96
199-D8-54B	C	17.87	134.88	117.01
199-D8-55	D	17.19	133.91	116.73
199-D8-6		28.07	145.24	117.17
199-F1-2		8.17	121.30	113.12
199-F5-1		10.54	123.92	113.38
199-F5-3	N	11.56	124.55	112.99
199-F5-4	I	13.01	125.61	112.61

**Appendix A: June 1994 Water Level Measurement Data**  
**(Sheet 2 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
199-F5-42	D	6.07	119.26	113.19
199-F5-43A	D	7.10	120.50	113.40
199-F5-43B	C	7.16	120.36	113.19
199-F5-44	D	9.25	122.73	113.48
199-F5-45	D	13.57	126.28	112.72
199-F5-46	D	14.25	127.09	112.83
199-F5-47	D	14.94	127.72	112.78
199-F5-48	D	14.47	127.21	112.74
199-F5-6	N	12.89	125.87	112.98
199-F6-1	D	10.82	123.49	112.67
199-F7-1		5.38	118.79	113.42
199-F7-2	N	7.17	120.25	113.08
199-F7-3	D	6.78	120.35	113.56
199-F8-1		10.79	123.71	112.92
199-F8-2	N	12.32	125.19	112.88
199-F8-3	D	8.70	121.83	113.14
199-F8-4		13.38	125.25	111.87
199-H3-1	N	13.97	128.47	114.50
199-H3-2A	N	12.86	127.35	114.50
199-H3-2B	N	13.05	127.53	114.49
199-H3-2C	C	12.96	127.47	114.52
199-H4-10	N	8.49	123.27	114.78
199-H4-11	N	12.35	127.05	114.70
199-H4-12A	N	11.29	126.03	114.75
199-H4-12B	N	11.30	126.04	114.74
199-H4-12C	C	11.34	126.04	114.70
199-H4-13	N	12.83	127.47	114.64
199-H4-14	N	13.73	128.20	114.46
199-H4-15A	N	9.35	124.12	114.77
199-H4-15B	N	9.27	124.03	114.76
199-H4-15CR	C	9.96	124.17	114.21
199-H4-15CS	C	9.43	124.19	114.76
199-H4-16		14.99	129.31	114.32
199-H4-17	N	13.16	127.74	114.57
199-H4-18	N	14.12	128.57	114.45

Appendix A: June 1994 Water Level Measurement Data  
(Sheet 3 of 23)

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
199-H4-3	N	13.63	128.10	114.47
199-H4-4	N	11.38	126.10	114.71
199-H4-45	D	12.67	126.99	114.32
199-H4-46	D	14.83	129.29	114.46
199-H4-47	D	14.95	129.51	114.56
199-H4-48	D	15.23	129.85	114.62
199-H4-49	D	14.84	129.49	114.65
199-H4-5	N	12.26	126.86	114.60
199-H4-6	N	13.40	127.89	114.49
199-H4-7	N	13.76	128.20	114.43
199-H4-8	N	13.56	128.02	114.45
199-H4-9	N	12.91	127.43	114.52
199-H5-1A		13.42	128.06	114.64
199-H6-1		13.17	127.44	114.27
199-K-106A	D	22.90		
199-K-107A	D	23.05		
199-K-108A	D	23.08		
199-K-11	I	22.61	142.20	119.59
199-K-13	D	22.31	141.43	119.12
199-K-18	D	6.54	124.66	118.12
199-K-19		10.19	128.68	118.49
199-K-20		10.25	128.80	118.55
199-K-21	N	10.28	128.54	118.26
199-K-22	N	11.17	129.39	118.22
199-K-23	N	22.82	123.44	100.62
199-K-27		22.47	142.24	119.77
199-K-28	N	22.19	142.03	119.84
199-K-29	N	22.64	142.46	119.82
199-K-30	N	22.20	142.10	119.90
199-K-31	N	6.93	125.70	118.77
199-K-32A	D	16.49	135.34	118.84
199-K-32B	C	14.44	135.72	121.28
199-K-33	D	16.34	135.22	118.88
199-K-34		23.24	142.67	119.44
199-K-35	D	30.21	150.74	120.52
199-K-36		29.97	150.59	120.62
199-K-37		16.44	134.66	118.22
199-N-14		20.53	138.28	117.76
199-N-16	I	21.31	139.37	118.06
199-N-19	I	20.53	138.51	117.99

**Appendix A: June 1994 Water Level Measurement Data  
(Sheet 4 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
199-N-2	I	22.37	140.13	117.77
199-N-20	I	21.09	139.10	118.00
199-N-21	I	21.43	139.44	118.01
199-N-23	I	21.20	139.23	118.03
199-N-25	N	11.89	129.92	118.03
199-N-26		21.04	139.07	118.03
199-N-27	N	18.91	137.04	118.13
199-N-28	N	23.35	141.65	118.31
199-N-29	N	23.66	141.96	118.30
199-N-3	I	22.19	140.02	117.84
199-N-31	N	23.19	141.01	117.82
199-N-32	N	22.96	141.00	118.03
199-N-33	N	22.38	140.32	117.94
199-N-34	N	22.19	140.25	118.07
199-N-41	N	21.97	139.63	117.66
199-N-42	N	21.13	138.88	117.74
199-N-49	N	20.06	137.54	117.49
199-N-50	N	23.80	141.40	117.60
199-N-51	N	23.29	141.04	117.75
199-N-52	N	23.21	141.49	118.28
199-N-54	N	21.70	139.60	117.90
199-N-55	N	21.80	139.71	117.91
199-N-56	N	21.95	139.78	117.82
199-N-57	N	21.59	139.68	118.09
199-N-62	N	23.15	141.46	118.31
199-N-63	N	24.17	142.41	118.24
199-N-64	N	20.60	138.73	118.13
199-N-65	N	21.27	139.29	118.02
199-N-67	N	22.12	139.89	117.78
199-N-69	C	22.23	140.01	117.78
199-N-70	C	20.84	138.59	117.75
199-N-71	N	22.43	141.13	118.70
199-N-72	N	21.33	139.90	118.57
199-N-73		22.84	141.20	118.36
199-N-74		20.87	139.49	118.62
199-N-75	N	21.42	139.23	117.80
199-N-76	N	20.01	137.81	117.80
199-N-77	N	21.55	140.04	118.49
199-N-80	C	21.55	139.50	117.96
199-N-81	D	23.25	141.03	117.78

Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
199-N-8S		5.66	123.48	117.82
299-E13-10		102.65	225.20	122.55
299-E13-12	I	100.94	222.91	121.97
299-E13-14		104.60	227.12	122.52
299-E16-1	C	88.26	212.27	124.02
299-E17-1		96.90	219.20	122.30
299-E17-10		95.47	217.85	122.38
299-E17-12		97.53	219.97	122.44
299-E17-13		96.88	219.23	122.35
299-E17-14		97.73	220.12	122.39
299-E17-15		97.88	220.00	122.12
299-E17-16		97.34	219.63	122.29
299-E17-17		97.10	219.43	122.33
299-E17-18		97.27	219.65	122.39
299-E17-5		96.82	219.06	122.24
299-E17-6	I	97.11	219.49	122.37
299-E17-8	I	96.70	218.96	122.26
299-E17-9		96.41	218.74	122.33
299-E18-1		97.06	219.53	122.47
299-E18-2		97.44	219.89	122.45
299-E18-3		97.76	220.09	122.33
299-E18-4		97.47	219.93	122.47
299-E23-1		94.82	217.35	122.54
299-E23-2	I	97.18	219.65	122.47
299-E24-16		96.60	218.93	122.33
299-E24-18		96.81	219.24	122.42
299-E24-2	I	96.28	218.68	122.40
299-E24-20		87.52	210.09	122.57
299-E24-7		95.75	218.24	122.49
299-E24-8	I	87.37	209.95	122.58
299-E25-10	I	77.38	199.90	122.52
299-E25-11	I	85.16	207.65	122.49
299-E25-18	C	84.45	206.97	122.52
299-E25-19	C	83.94	206.41	122.47
299-E25-2		83.33	205.94	122.61

**Appendix A: June 1994 Water Level Measurement Data**  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
299-E25-20	C	83.66	206.14	122.47
299-E25-21		83.80	206.43	122.63
299-E25-26	C	81.18	203.76	122.58
299-E25-28	I	79.26	201.91	122.65
299-E25-32P		81.59	204.23	122.64
299-E25-32Q	I	81.50	204.23	122.72
299-E25-34		79.42	202.04	122.62
299-E25-35		83.06	205.55	122.50
299-E25-36		93.22	215.61	122.39
299-E25-40		80.39	202.97	122.58
299-E25-41		82.06	204.66	122.61
299-E25-42		85.74	208.27	122.53
299-E25-43		75.40	198.09	122.69
299-E25-46		89.22	211.78	122.55
299-E25-47		82.77	205.37	122.60
299-E25-48		85.39	207.97	122.58
299-E25-9	I	77.70	199.60	121.90
299-E26-1		65.49	188.14	122.65
299-E26-10		60.71	183.33	122.62
299-E26-12		69.52	192.25	122.73
299-E26-13		61.70	184.41	122.71
299-E26-2		71.02	193.64	122.62
299-E26-4	I	74.84	197.44	122.60
299-E26-8	C	66.27	183.72	117.45
299-E26-9		61.15	183.76	122.61
299-E27-1	I	85.51	208.04	122.53
299-E27-10		67.81	190.34	122.53
299-E27-11		73.70	196.07	122.37
299-E27-12		79.00	201.52	122.52
299-E27-13		81.39	203.97	122.58
299-E27-14		78.18	200.72	122.54
299-E27-15		76.77	198.99	122.22
299-E27-16		76.39	198.77	122.38
299-E27-17		70.99	193.46	122.47
299-E27-8		72.01	194.41	122.40

Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
299-E27-9		69.35	191.78	122.43
299-E28-12	D	93.36	215.98	122.62
299-E28-17		93.17	215.97	122.80
299-E28-18	I	88.60	211.10	122.50
299-E28-26		87.10	209.48	122.37
299-E28-27		85.01	207.38	122.36
299-E28-28		86.92	209.26	122.34
299-E28-4		88.23	210.78	122.55
299-E28-6		90.84	213.39	122.55
299-E28-7	I	86.80	209.07	122.26
299-E28-9		91.07	213.59	122.52
299-E32-1		77.47	200.00	122.53
299-E32-10		72.03	194.43	122.39
299-E32-2		81.93	204.23	122.31
299-E32-3		83.87	206.20	122.33
299-E32-4		86.77	209.06	122.29
299-E32-5		85.58	207.92	122.33
299-E32-6		81.02	203.44	122.41
299-E32-7		78.28	200.69	122.40
299-E32-8		74.40	196.78	122.38
299-E32-9		73.69	196.09	122.39
299-E33-1		70.16	192.67	122.50
299-E33-12	C	67.44	190.03	122.59
299-E33-13		69.30	191.52	122.22
299-E33-14		67.13	189.60	122.47
299-E33-15		68.72	191.20	122.47
299-E33-17		70.05	192.53	122.48
299-E33-18		76.16	198.69	122.53
299-E33-2		70.10	192.55	122.45
299-E33-21		81.20	203.71	122.51
299-E33-26	D	70.75	192.79	122.04
299-E33-28		80.08	202.46	122.37
299-E33-29		83.00	205.37	122.36
299-E33-3		69.75	192.20	122.45
299-E33-30		79.92	202.30	122.37

**Appendix A: June 1994 Water Level Measurement Data**  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
299-E33-31		74.87	197.35	122.48
299-E33-32		78.83	201.18	122.34
299-E33-33		72.69	195.18	122.49
299-E33-34		70.70	193.04	122.34
299-E33-35		73.68	195.99	122.31
299-E33-36		75.10	197.11	122.01
299-E33-37		76.62	199.04	122.42
299-E33-38		70.22	192.62	122.40
299-E33-39		67.64	189.99	122.35
299-E33-4		69.51	191.96	122.45
299-E33-40	C	67.85	190.37	122.53
299-E33-41		77.18	199.63	122.45
299-E33-42		76.95	199.43	122.48
299-E33-43		79.54	201.98	122.44
299-E33-5		70.95	193.46	122.51
299-E33-7		68.91	191.34	122.44
299-E33-8		75.89	198.40	122.51
299-E34-1		69.35	191.86	122.51
299-E34-10		72.52	195.00	122.48
299-E34-11		65.88	188.35	122.47
299-E34-12		72.30	194.72	122.41
299-E34-2		69.83	192.27	122.44
299-E34-3		63.86	186.39	122.54
299-E34-5		57.34	180.07	122.73
299-E34-7		61.70	184.18	122.47
299-E34-8	D	72.92	195.23	122.31
299-E34-9		69.18	191.62	122.45
299-E35-2		60.90	183.52	122.62
299-W10-10	I	65.25	205.85	140.60
299-W10-11	I	65.22	205.90	140.68
299-W10-12	I	65.13	205.74	140.61
299-W10-13		72.49	213.07	140.57
299-W10-14	I	72.73	213.19	140.46
299-W10-15		65.42	206.01	140.60
299-W10-16		64.43	205.14	140.70

**Appendix A: June 1994 Water Level Measurement Data**  
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Well	Notes	Depth to Water (m)	Elevation, m above msL Adjusted Casing	Water Level
299-W10-17		63.75	204.47	140.72
299-W10-18		63.52	204.50	140.98
299-W10-19		68.02	208.18	140.16
299-W10-2		64.87	205.43	140.56
299-W10-20	D	69.22	209.56	140.34
299-W10-21	D	65.65	205.45	139.80
299-W10-5		64.24	204.92	140.68
299-W10-8		66.85	207.36	140.51
299-W10-9		65.09	205.72	140.63
299-W11-10		84.11	222.17	138.06
299-W11-12		66.50	207.04	140.54
299-W11-14	I	78.65	217.98	139.33
299-W11-19	I	76.35	215.49	139.14
299-W11-23		69.34	209.75	140.40
299-W11-24		68.99	209.53	140.54
299-W11-27		68.39	208.87	140.48
299-W11-28		70.74	211.37	140.63
299-W11-3	I	79.84	218.99	139.15
299-W11-31		76.19	215.45	139.26
299-W11-6		78.80	218.31	139.51
299-W11-7		75.95	216.14	140.19
299-W11-9		81.58	220.35	138.77
299-W12-1		84.70	221.43	136.72
299-W14-1		62.72	202.94	140.22
299-W14-12		63.14	204.37	141.23
299-W14-5		61.22	203.18	141.96
299-W14-9	D	69.88		
299-W15-10	I	65.33	206.04	140.72
299-W15-11	I	66.09	206.35	140.26
299-W15-12		63.23	204.24	141.01
299-W15-13		63.22	204.25	141.03
299-W15-15		71.79	212.74	140.95
299-W15-16		67.63	208.75	141.13
299-W15-17	I	67.64	208.68	141.04
299-W15-18		67.89	209.00	141.11
299-W15-19		69.86	210.80	140.94
299-W15-2		70.63	210.53	139.90
299-W15-20		71.95	212.86	140.91
299-W15-22		62.95	204.45	141.50
299-W15-23		72.27	213.20	140.93

**Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
299-W15-24		72.22	213.17	140.95
299-W15-4		60.44	201.78	141.34
299-W15-5		62.87	204.42	141.56
299-W15-7	I	61.80	202.39	140.58
299-W18-15	I	60.37	201.40	141.03
299-W18-17	D	30.96		
299-W18-21		62.87	203.80	140.93
299-W18-22	I	62.97	203.76	140.78
299-W18-23		71.44	212.39	140.95
299-W18-24		67.45	208.59	141.14
299-W18-25		61.78	203.01	141.23
299-W18-26		72.11	213.07	140.96
299-W18-28		66.25	207.26	141.02
299-W18-3		70.10	209.70	139.60
299-W18-30		63.75	205.08	141.33
299-W18-31		61.16	202.44	141.27
299-W18-32		65.06	206.24	141.18
299-W18-33	D	62.83	203.88	141.06
299-W18-5	I	67.44	208.18	140.74
299-W19-12		63.84	205.21	141.37
299-W19-14		71.41	211.29	139.88
299-W19-15		71.16	211.31	140.15
299-W19-2	I	72.69	211.54	138.86
299-W19-20		72.44	210.63	138.19
299-W19-21		65.52	206.90	141.38
299-W19-27		67.13	208.46	141.33
299-W19-28		74.98	214.38	139.40
299-W19-31		64.13	205.49	141.36
299-W19-32		64.32	205.71	141.39
299-W19-4	I	79.08	218.01	138.93
299-W19-6	C	69.27	209.28	140.00
299-W19-91	I	33.50	206.62	173.13
299-W19-92	I	33.32	206.62	173.31
299-W21-1		75.57	213.13	137.57
299-W22-19	I	69.44	207.65	138.21

Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
299-W22-21	I	65.53	204.22	138.69
299-W22-22	I	71.67	210.33	138.66
299-W22-26	I	67.92	207.36	139.44
299-W22-39		64.24	203.69	139.44
299-W22-40		72.28	210.99	138.71
299-W22-41		72.14	210.84	138.71
299-W22-42		71.98	210.67	138.68
299-W22-43		71.76	210.72	138.96
299-W22-44		66.63	206.69	140.06
299-W22-45		63.44	203.06	139.62
299-W22-46		65.22	204.58	139.36
299-W22-7	I	70.77	209.52	138.75
299-W23-11		62.23	202.43	140.20
299-W23-13		62.89	203.10	140.21
299-W23-14		62.35	202.39	140.03
299-W23-15		60.14	199.78	139.64
299-W23-4	I	61.64	201.97	140.33
299-W23-6	I	63.83	203.31	139.48
299-W23-8	I	62.30	202.37	140.08
299-W26-10		65.49	204.48	138.99
299-W26-11	Q	42.35	205.56	163.21
299-W26-12		66.86	205.95	139.09
299-W26-6	D	59.91		
299-W26-7		59.19	198.73	139.54
299-W26-8		63.91	203.09	139.18
299-W26-9		60.29	199.39	139.10
299-W27-2	I	67.39	206.38	138.99
299-W6-1		75.45	214.13	138.68
299-W6-10		78.80	217.16	138.36
299-W6-11		75.85	214.23	138.38
299-W6-12		72.36	211.08	138.72
299-W6-2		71.80	211.06	139.25
299-W6-3	I	74.27	213.31	139.03
299-W6-4		74.49	213.74	139.25
299-W6-6	I	78.29	216.41	138.12

**Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
299-W6-7		78.35	216.49	138.14
299-W6-9		72.97	212.14	139.17
299-W7-1		71.09	210.53	139.44
299-W7-10		71.16	210.21	139.05
299-W7-11		68.35	207.71	139.36
299-W7-12		70.25	209.68	139.43
299-W7-2		66.92	205.92	139.00
299-W7-3	I	67.30	206.09	138.79
299-W7-4		65.06	204.73	139.67
299-W7-5		66.17	205.15	138.97
299-W7-6		67.92	206.85	138.93
299-W7-7		66.73	205.72	138.99
299-W7-8		70.94	209.50	138.57
299-W7-9		71.37	210.95	139.58
299-W8-1		74.18	213.77	139.59
299-W9-1		84.56	224.86	140.30
3099-47-18B		9.63	114.28	104.65
399-1-1		9.96	114.81	104.85
399-1-10A		9.01	113.86	104.85
399-1-11		10.23	115.13	104.90
399-1-12		12.37	117.17	104.80
399-1-13A	D	13.62	118.45	104.84
399-1-14A		11.87	116.79	104.92
399-1-15		10.71	115.68	104.97
399-1-16A		11.55	116.27	104.72
399-1-16B	I	11.38	116.15	104.77
399-1-16C	I	2.38	116.50	114.12
399-1-17A		10.28	115.04	104.76
399-1-17B	I	10.66	115.15	104.49
399-1-17C	I	.42	115.23	114.82
399-1-18A		14.02	119.11	105.09
399-1-18B	I	13.67	118.84	105.17
399-1-18C	I	12.93	118.27	105.34
399-1-19	D	9.36	114.19	104.83
399-1-2		13.19	117.20	104.01

Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
399-1-21A	D	11.81	116.55	104.74
399-1-21B	D	12.10	116.84	104.74
399-1-3		12.52	117.26	104.74
399-1-4		11.09	116.00	104.92
399-1-5		10.95	115.75	104.81
399-1-6		8.99	113.94	104.95
399-1-7		12.81	117.53	104.72
399-1-8		12.58	117.31	104.73
399-1-9	I	6.97	117.27	110.31
399-2-1	I	9.69	114.37	104.68
399-2-2		10.33	115.07	104.74
399-2-3		9.69	114.43	104.74
399-3-1		12.52	117.16	104.65
399-3-10		12.85	117.45	104.60
399-3-12		13.73	118.27	104.55
399-3-6		15.02	119.73	104.70
399-3-9		13.65	118.29	104.64
399-4-1	I	15.99	120.58	104.59
399-4-10		10.81	115.38	104.57
399-4-11		18.64	123.28	104.63
399-4-7	I	10.84	115.39	104.55
399-4-9		11.88	116.48	104.61
399-5-1	I	15.82	120.56	104.74
399-6-1		13.69	118.50	104.81
399-8-1		15.93	120.74	104.81
399-8-2	I	16.34	121.32	104.98
399-8-3	I	15.41	120.32	104.91
399-8-5A	D	17.04	122.01	104.97
399-8-5B	I	16.79	121.87	105.08
399-8-5C	D	8.89	121.89	113.00
699-10-54A		31.44	157.40	125.96
699-10-E12		22.53	131.33	108.79
699-101-48B		2.69	118.92	116.23
699-11-45A		50.81	176.35	125.54
699-14-38		33.65	156.94	123.29

**Appendix A: June 1994 Water Level Measurement Data  
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Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-14-47		53.43	178.99	125.55
699-15-15A		42.67	166.77	124.10
699-15-26		37.88	159.66	121.78
699-17-5		13.99	132.04	118.05
699-17-70		27.05	171.66	144.61
699-19-43		45.45	168.12	122.67
699-19-58		47.19	174.67	127.47
699-19-88		39.81	196.43	156.62
699-2-3		26.65	145.43	118.78
699-2-33A		40.30	163.49	123.19
699-20-20		32.33	154.10	121.77
699-20-39	I	42.24	164.59	122.34
699-20-41P	D	40.97	162.15	121.19
699-20-41Q	D	41.45	162.15	120.71
699-20-41R	D	42.18	162.15	119.98
699-20-E12		24.41	133.27	108.87
699-21-17	D	40.13	160.72	120.59
699-23-34A	D	40.15	162.42	122.26
699-24-1T	C	30.88	144.94	114.07
699-24-33		37.53	159.78	122.25
699-24-34A		40.46	162.73	122.27
699-24-34B		40.38	162.61	122.23
699-24-34C		40.06	162.33	122.27
699-24-35		41.95	164.23	122.28
699-25-33A	I	38.98	161.23	122.25
699-25-34A		39.40	161.64	122.24
699-25-34B		39.25	161.36	122.11
699-25-34C		40.93	163.21	122.27
699-25-34D		41.67	163.95	122.29
699-25-55		80.58	206.21	125.64
699-25-70		56.21	191.96	135.75
699-26-15A		13.92	134.92	120.99
699-26-33		41.09	163.22	122.12
699-26-34A		38.93	161.06	122.12
699-26-34B		39.34	161.63	122.29

**Appendix A: June 1994 Water Level Measurement Data**  
**(Sheet 15 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above ms1 Adjusted Casing	Water Level
699-26-35A		40.23	162.35	122.12
699-26-35C	I	40.08	162.36	122.28
699-26-83BP	D	71.23	193.85	122.62
699-26-83BQ	D	71.13	193.85	122.72
699-26-83BR	D	72.37	193.85	121.49
699-26-89		55.60	199.06	143.46
699-27-8		22.29	141.94	119.65
699-28-40	I	48.14	170.52	122.38
699-28-52A		85.76	208.69	122.93
699-29-70AP	C	58.31	191.95	133.64
699-29-70AQ	C	56.42	192.07	135.65
699-29-70CP	C	70.19	192.31	122.12
699-29-70CQ	C	71.03	192.33	121.30
699-29-70CR	C	70.53	192.37	121.84
699-29-70CS	C	71.29	192.42	121.13
699-29-70CT	C	71.56	192.48	120.92
699-29-70CU	C	71.90	192.52	120.63
699-29-70DP	C	63.62	192.76	129.14
699-29-78		57.37	197.22	139.85
699-3-45		28.31	153.78	125.47
699-31-31	I	39.08	161.34	122.26
699-31-65	I	74.50	208.21	133.70
699-31-84B	C	62.35	190.54	128.19
699-32-22A	D	36.10		
699-32-43		35.03	157.47	122.43
699-32-62		84.93	215.52	130.59
699-32-70B	I	66.63	203.20	136.57
699-32-72	I	66.54	203.66	137.11
699-32-72B	D	66.96		
699-32-77	I	59.91	199.26	139.35
699-33-42		35.05	157.28	122.23
699-33-56		95.78	218.55	122.77
699-34-39A		41.29	163.70	122.41
699-34-41B		51.56	174.01	122.45
699-34-42	I	42.19	164.65	122.46
699-34-51		101.92	224.56	122.65
699-34-61	D	93.55	220.77	127.22
699-34-88		50.54	192.88	142.34
699-35-66		87.94	221.18	133.24
699-35-70		74.89	211.45	136.55

**Appendix A: June 1994 Water Level Measurement Data  
(Sheet 16 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-35-78A	I	60.78	201.37	140.58
699-35-9		35.26	152.35	117.09
699-36-61A		103.94	228.02	124.08
699-36-93	I	53.28	196.53	143.25
699-37-43		87.61	210.36	122.76
699-37-82A	I	52.79	194.08	141.29
699-38-61	D	103.53	227.13	123.61
699-38-65		99.01	229.61	130.61
699-38-70		79.62	216.61	136.99
699-39-39	I	37.65	163.57	125.92
699-39-79	I	64.30	205.29	140.99
699-40-1		23.06	133.72	110.65
699-40-33A		32.82	157.90	125.08
699-40-36	C	35.97	161.21	125.25
699-40-39	C	39.34	165.15	125.82
699-40-40A	C	39.46	164.96	125.50
699-40-40B	C	39.67	165.26	125.59
699-40-62		104.65	227.92	123.27
699-41-23		21.33	142.19	120.86
699-41-35	C	33.08	158.61	125.53
699-41-40	C	39.58	166.40	126.82
699-41-42		70.75	196.26	125.51
699-42-37		31.83	158.32	126.49
699-42-39A	C	42.10	170.12	128.02
699-42-39B	C	42.19	170.18	127.98
699-42-40A	C	37.54	166.28	128.74
699-42-40B		37.52	166.56	129.04
699-42-40C	C	40.39	166.47	126.08
699-42-41		44.62	172.91	128.29
699-42-42B	D	50.70	177.77	127.07
699-43-104		83.25	233.50	150.25
699-43-40		36.77	165.26	128.49
699-43-41E	C	39.44	167.90	128.46
699-43-41F	C	39.47	167.95	128.48
699-43-41G	C	40.76	168.05	127.28

Appendix A: June 1994 Water Level Measurement Data  
(Sheet 17 of 23)

Well	Notes	Depth to Water (m)	Elevation, m above ms1 Adjusted Casing	Water Level
699-43-42J		49.67	177.30	127.62
699-43-43	D	49.98	176.59	126.61
699-43-45		59.34	182.17	122.83
699-43-89		54.85	196.34	141.49
699-43-91AP	C	70.67	204.68	134.01
699-43-91AQ	C	70.63	204.81	134.18
699-43-91D	C	79.90	204.82	124.92
699-44-39B		27.97	156.48	128.52
699-44-42		48.37	176.55	128.17
699-44-43B		50.33	176.82	126.49
699-44-64		97.53	221.16	123.63
699-44-91P	C	81.79	204.87	123.08
699-44-91Q	C	81.87	204.93	123.06
699-44-91R	C	81.54	204.97	123.43
699-44-91S	C	83.69	205.03	121.35
699-44-91T	C	83.99	205.08	121.09
699-44-91U	C	84.11	205.13	121.02
699-45-42		49.04	175.97	126.93
699-46-21B		40.15	159.11	118.96
699-47-35A		19.35	145.19	125.84
699-47-35B		19.44	145.28	125.84
699-47-46A	C	54.08	176.83	122.74
699-47-50	C	55.26	178.07	122.81
699-47-60		76.22	198.58	122.36
699-47-80AP	I	83.13	217.33	134.21
699-47-80AQ	I	80.20	217.48	137.28
699-47-80CP	I	93.89	217.19	123.30
699-47-80CQ	I	94.19	217.25	123.06
699-47-80CR	I	94.18	217.30	123.12
699-47-80CS	I	95.95	217.35	121.40
699-47-80CT	I	96.07	217.40	121.33
699-47-80CU	I	96.12	217.45	121.33
699-47-80DP	I	90.34	216.45	126.11
699-48-50	Q	82.62	174.97	92.36
699-48-71		74.48	209.75	135.27

**Appendix A: June 1994 Water Level Measurement Data  
(Sheet 18 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-48-7A	D	7.94		
699-49-111	D	13.22	278.32	265.10
699-49-13E		15.73	125.80	110.07
699-49-28		43.34	163.19	119.85
699-49-55A		39.46	161.86	122.40
699-49-55B	C	39.48	161.89	122.40
699-49-57A		46.33	168.71	122.38
699-49-57B	C	47.11	169.47	122.36
699-49-79		71.58	210.07	138.49
699-50-28B		44.02	163.77	119.75
699-50-30	I	41.21	161.19	119.98
699-50-42		17.34	142.29	124.96
699-50-45	C	13.39	137.59	124.20
699-50-48B	I	44.33	167.76	123.43
699-50-53A		47.56	169.91	122.36
699-50-53B	C	47.51	169.96	122.45
699-50-85		87.01	225.35	138.35
699-51-46	C	11.80	135.52	123.73
699-51-63		51.23	174.30	123.06
699-51-75		59.07	195.53	136.46
699-52-19		15.26	125.30	110.04
699-52-46A	C	14.65	138.87	124.22
699-52-48	C	18.99	142.06	123.06
699-52-54		51.01	173.26	122.26
699-52-57		49.18	171.24	122.05
699-53-111	D	17.24	282.67	265.44
699-53-114	D	31.96	297.21	265.25
699-53-35	D	39.79	161.85	122.05
699-53-47A		10.10	133.59	123.48
699-53-47B		10.20	133.68	123.48
699-53-48A	D	12.09	134.86	122.77
699-53-48B		11.53	134.94	123.41
699-53-50	C	12.62	135.40	122.78
699-53-55A	I	53.56	175.74	122.17
699-53-55B	I	53.73	175.82	122.09

Appendix A: June 1994 Water Level Measurement Data  
(Sheet 19 of 23)

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-53-55C		53.43	175.60	122.18
699-54-19	D	6.86	116.92	110.06
699-54-34		42.96	167.71	124.76
699-54-42	I	35.12	155.90	120.79
699-54-45A		29.40	150.66	121.26
699-54-48		17.13	139.30	122.17
699-54-57	C	53.41	175.64	122.23
699-55-21	D	11.07	120.69	109.62
699-55-44		37.73	158.40	120.67
699-55-50C		13.27	135.46	122.19
699-55-55		49.70	171.48	121.78
699-55-57		51.01	173.19	122.18
699-55-70		42.31	173.44	131.13
699-55-76		42.81	177.77	134.97
699-55-89	I	49.90	188.19	138.29
699-55-95	I	95.29	236.84	141.56
699-56-43	C	40.45	164.72	124.27
699-56-53	C	10.11	132.39	122.27
699-57-25A	N	15.60	126.36	110.76
699-57-29A	N	16.57	124.50	107.93
699-57-29B	N	16.77	126.85	110.08
699-57-59		53.46	175.64	122.18
699-57-83A		44.47	176.16	131.69
699-57-83BP	C	54.63	176.35	121.71
699-57-83BQ	C	54.73	176.40	121.67
699-57-83BR	C	54.74	176.45	121.71
699-57-83C	C	52.65	176.66	124.01
699-59-32		19.18	129.32	110.14
699-59-58		29.61	151.72	122.11
699-59-80B		46.89	177.77	130.88
699-60-32		19.53	129.63	110.10
699-60-57	I	20.92	143.15	122.22
699-60-59	D	32.12	155.45	123.33
699-60-60		33.96	156.07	122.10
699-61-37	N	18.84	135.01	116.17
699-61-41	N	10.23	130.73	120.51
699-61-62		29.53	151.64	122.11
699-61-66		37.30	159.16	121.86
699-62-31		22.24	132.32	110.08
699-62-43A		11.19	131.77	120.57

**Appendix A: June 1994 Water Level Measurement Data  
(Sheet 20 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-63-25A		10.41	120.44	110.03
699-63-51		7.95	129.40	121.45
699-63-55		8.36	130.01	121.65
699-63-58		28.19	149.93	121.74
699-63-90		33.89	155.37	121.47
699-63-92	C	29.89	151.64	121.75
699-64-27	N	16.21	126.28	110.07
699-64-62		30.79	152.48	121.68
699-65-22		8.65	119.21	110.55
699-65-50		20.92	142.36	121.44
699-65-59A		32.87	154.52	121.65
699-65-72		43.43	164.68	121.25
699-65-83		26.90	148.02	121.12
699-65-95	C	16.16	137.85	121.69
699-66-103		19.29	141.13	121.84
699-66-23	N	8.29	118.57	110.28
699-66-38		10.44	132.97	122.53
699-66-39	N	14.38	138.31	123.93
699-66-58		31.78	153.41	121.64
699-66-64		32.67	154.20	121.54
699-66-91	C	20.95	142.57	121.62
699-67-51		38.41	159.90	121.48
699-67-86		22.91	143.98	121.07
699-67-98		16.98	138.83	121.84
699-68-105		16.26	137.72	121.46
699-69-38		6.47	129.27	122.80
699-69-450	I	27.20	148.49	121.29
699-70-23		8.46	119.39	110.93
699-70-68		39.11	160.39	121.28
699-71-30		9.31	122.13	112.81
699-71-52		38.15	159.42	121.27
699-71-77	I	23.12	143.95	120.83
699-72-73		26.35	147.09	120.74
699-72-88		11.25	133.31	122.06
699-72-92		15.79	137.84	122.05

Appendix A: June 1994 Water Level Measurement Data  
(Sheet 21 of 23)

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-72-98	D	15.21	138.44	123.22
699-73-61		40.81	162.01	121.20
699-74-44		14.92	135.69	120.77
699-74-48		27.72	148.49	120.77
699-77-36		11.16	125.66	114.50
699-77-54		25.79	146.48	120.59
699-78-62		23.19	143.22	120.03
699-8-17		38.16	159.24	121.08
699-8-25		33.80	155.23	121.44
699-8-32		47.35	168.98	121.63
699-80-43S		7.77	125.74	117.97
699-81-38		8.43	123.89	115.46
699-81-58		14.38	133.97	119.60
699-82-45A	D	7.82	126.10	118.29
699-83-36		12.58	127.60	115.02
699-83-47		14.36	132.67	118.31
699-84-35A	C	2.16	121.94	119.78
699-86-42		7.82	124.94	117.13
699-87-42A		10.05	126.96	116.91
699-87-55		22.15	139.79	117.64
699-88-41		10.41	126.81	116.40
699-89-35		7.68	121.15	113.46
699-9-E2		13.99	127.43	113.45
699-90-34	D	6.04	119.60	113.56
699-90-37B	D	15.22	128.91	113.69
699-90-45		11.54	128.49	116.95
699-91-46A	D	10.22	127.12	116.90
699-93-48A		16.85	133.44	116.59
699-96-43	D	13.13	128.58	115.45
699-96-49		10.56	127.78	117.22
699-97-43		13.24	128.58	115.34
699-97-51A		6.32	122.61	116.30
699-98-49A	D	6.27	122.47	116.20
699-S12-29		25.49	148.64	123.16
699-S12-3		16.65	132.75	116.10

**Appendix A: June 1994 Water Level Measurement Data  
(Sheet 22 of 23)**

Well	Notes	Depth to Water (m)	Elevation, m above ms1 Adjusted Casing	Water Level
699-S14-20A		28.04	150.19	122.15
699-S18-E2A	I	23.02	132.54	109.52
699-S19-11		28.54	147.44	118.90
699-S19-E13		15.01	120.25	105.24
699-S19-E14		8.76	113.95	105.19
699-S22-E9A	D	8.71	114.05	105.34
699-S22-E9B	I	8.37	113.91	105.53
699-S27-E14		17.25	121.82	104.57
699-S27-E9A	D	12.74	118.95	106.21
699-S27-E9B	I	12.32	119.00	106.68
699-S27-E9C	D	1.92	119.04	117.13
699-S28-E12		13.58	118.80	105.22
699-S29-E16	D	11.23	115.74	104.51
699-S29-E16	I	11.27	115.79	104.52
699-S29-E16	D	.93	115.67	114.74
699-S3-25		38.14	159.56	121.43
699-S3-E12		13.37	121.28	107.91
699-S30-E10		12.78	119.57	106.79
699-S30-E10		12.57	119.50	106.94
699-S30-E15		17.50	121.96	104.46
699-S31-1		25.02	140.21	115.19
699-S31-E10		10.50	117.22	106.71
699-S31-E10		10.05	116.95	106.91
699-S31-E10		9.82	116.71	106.89
699-S31-E10		9.15	116.00	106.85
699-S31-E8A	D	5.88		
699-S32-E13		13.26	119.01	105.75
699-S32-E13		14.47	120.31	105.84
699-S32-E8	I	4.35	114.45	110.10
699-S34-E10		8.41	116.55	108.13
699-S34-E15		16.92	124.37	107.45
699-S36-E12		14.01	121.63	107.62
699-S36-E13		14.14	121.71	107.57
699-S37-E11	D	13.88		
699-S37-E14		16.91	124.44	107.53
699-S38-E11		13.33	121.49	108.16
699-S38-E12		15.64	123.43	107.79
699-S38-E12		15.64	123.44	107.80
699-S40-E14		14.40	122.79	108.39
699-S41-E11	D	14.07		

Appendix A: June 1994 Water Level Measurement Data  
(Sheet 23 of 23)

Well	Notes	Depth to Water (m)	Elevation, m above msl Adjusted Casing	Water Level
699-S41-E12		14.92	122.51	107.59
699-S41-E13		17.08	125.14	108.06
699-S41-E13		16.93	125.00	108.06
699-S41-E13	I	17.17	125.17	108.01
699-S43-E12		15.68	123.63	107.95
699-S6-E14A	I	8.53	115.30	106.78
699-S6-E4D		17.75	131.21	113.46
699-S7-34		36.20	160.67	124.47
699-S8-19		32.73	153.56	120.83

Notes: C = Well in confined aquifer, not included in model  
D = Insufficient construction data, not included in model  
I = Inadequate well construction, not included in model  
N = Well included in model but not shown on map  
Q = Questionable data, not included in model

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